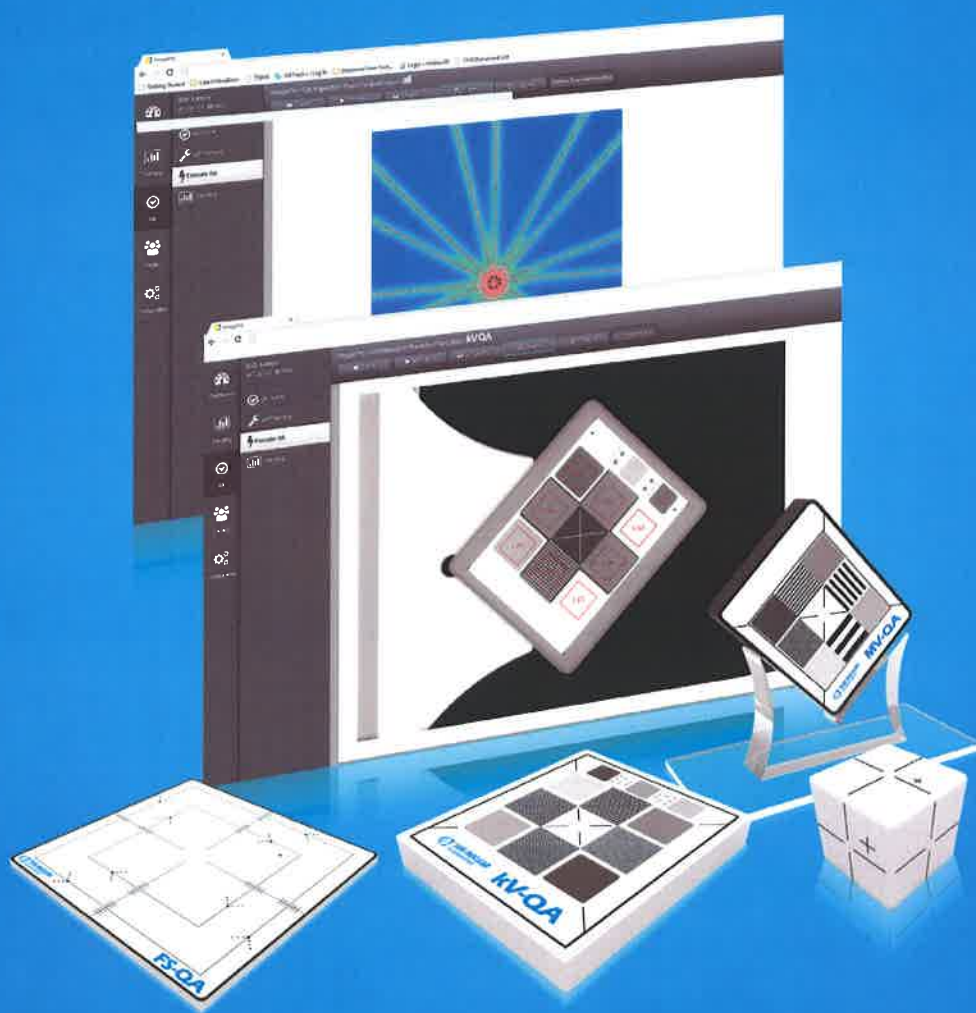


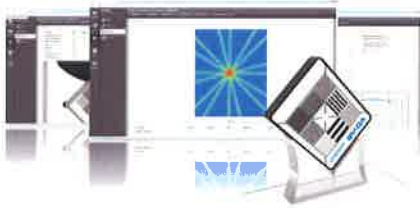
**X-5**

# ImagePro™

## Solution for TG-142 | Built to Perform



## ImagePro™



### Built To Perform

Building upon the innovation and quality that you've come to trust and expect from Sun Nuclear, ImagePro was built from the ground up to deliver a comprehensive TG-142 solution that is fast, accurate, and easy to use.

ImagePro software and phantoms address all the common TG-142 tasks. Consistent with Sun Nuclear practice, ImagePro software algorithms are documented and transparent to users and ImagePro phantoms are purpose built for MV QA, kV QA, Field Size QA and Winston-Lutz tests.

#### Fast



**Execute tests automatically and review results in as few as five minutes.**

*A complete set of TG-142 QA tasks, from software launch to a PDF report, can be performed in minutes.*

#### Accurate



**Stringent QA you can trust to identify random and systemic errors.**

*ImagePro uses advanced algorithms that automatically interpret a broad range of data files, reducing your clicks, and reducing the number of workflow errors you encounter.*

#### Easy to Use



**Plug and play set up and intuitive user interface saves you time.**

*You do not need to rename your files with ImagePro, and many tasks are automated to a click or two. Combine images, execute a QA test plan, create a single PDF with all QA results, and back up files and the database with ease.*

## Testimonial

*"What Medical Physicists need to perform QA tests are integrity, speed and the opportunity to create their own workflow. That's what ImagePro delivers."*

*Ricardo Tortosa Oliver and Nestor Chinillach Ferrando  
Medical Physicists, Hospital IMED Elche, Alicante, Spain*

## Why ImagePro™?

ImagePro offers all of the TG-142 features you expect, and much more...

### QA Planner™



ImagePro helps you create your own QA protocol. QA Planner allows for efficient, repeatable execution of monthly and annual test plans. QA Planner and workflow are scripted and saved with all necessary parameters, streamlining future QA.

- ▶ QA Planner automatically determines the machine and tolerance each time you run a test.
- ▶ Never rename another file again. QA Planner automatically handles uploaded files with their original names.
- ▶ Because the entire QA Planner is scripted and saved for reuse, errors are reduced and data integrity is increased.

### Integrated Data Device™



ImagePro is delivered to you pre-installed on Sun Nuclear's Integrated Data Device (IDD). Simply connect your IDD to your network and you are ready to use ImagePro.

- ▶ No hardware to purchase or provision. No software to install on any computer. No tedious configuration. Plug in the IDD and ImagePro is ready to use.
- ▶ Any computer on the network with a web browser can access ImagePro, including the database.

### Secure Web Application



ImagePro software is accessed on your network using a web browser.

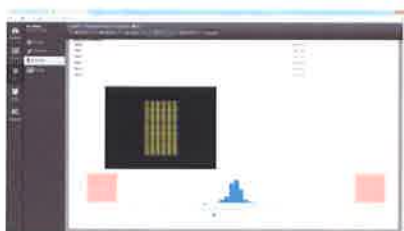
- ▶ ImagePro's web architecture offers flexibility, personalization, and less overhead for you.
- ▶ ImagePro software and your data are not available outside of your network and are completely secure.

## ImagePro™ Mechanical QA Tests



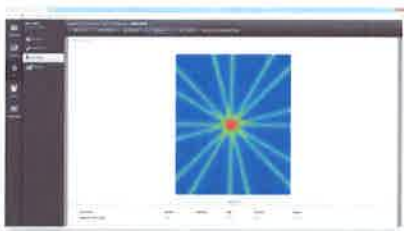
### MLC Log

- ▶ Using machine log files, ImagePro calculates TG-142 recommended MLC tests automatically, including RMS errors and leaf travel speed.



### MLC Strip

- ▶ ImagePro checks MLC leaf positioning accuracy and reproducibility, and MLC interleaf transmission.



### Startshots

- ▶ Test gantry, collimator, and couch rotation with a single click, eliminating the need to manually detect the center.



### Flatness, Symmetry, Penumbra, Field Size, Light-Radiation

- ▶ Profile flatness, symmetry, penumbra analysis, and constancy.
- ▶ Field size and symmetric/asymmetric light-radiation field coincidence and jaw positioning.



### Winston-Lutz

- ▶ Congruence of radiation and mechanical isocenter as the beam is rotated, and 3D isocenter offset results.

## ImagePro™ Imaging QA Tests



### MV/kV Imaging

- ▶ Automated QA of image scaling, positioning offset, spatial resolution, contrast, uniformity, and noise.



### Cone Beam CT

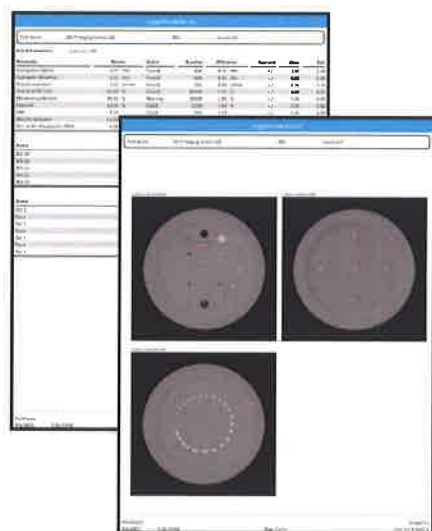
- ▶ Cone Beam CT QA with automatic identification of correct image slices.

## Trending and Reports



### Data Review

- ▶ All relevant test data is automatically stored in a database.
- ▶ The trending tool allows you to compare multiple data points from multiple linacs in the same graph with dual tolerance levels, if desired.
- ▶ Predicting where the trend data is headed provides early warning for potential equipment issues.



### Reports

- ▶ Reports from multiple QA tasks can be combined with one click to create a bundled PDF report with all QA results.

## FAQ

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▶ **What are the advantages of the Integrated Data Device (IDD)?**

- ▶ A cutting-edge software package ready to use as soon as you plug it in and turn it on. No time installing software, no need to interfere with an existing server in the IT environment. Optimized to deliver an exact performance and configuration. Maintenance is minimal and upgrades are simple. The IDD is very durable and has a storage capacity that will serve most sites for multiple years.

▶ **What does it mean that ImagePro is a web application?**

- ▶ Web applications eliminate the need for you to install software on each computer, allowing anyone with privileges to access the application from any device when connected to the network. For example, this includes the companion PC to the linac or a laptop in your office. It also allows you to access the software from mobile devices such as a tablet or smart phone.

▶ **How long does it take to perform my QA?**

- ▶ A complete set of supported TG-142 QA tasks, from launching the software to analysis and reporting, can be performed in as few as five minutes. ImagePro offers a number of time-saving and powerful features that automate tasks and provide for an efficient workflow. When you want to experiment or pursue a deeper analysis, there are significant time savings compared to other solutions.

▶ **Does ImagePro feature machine log file analysis?**

- ▶ Yes, ImagePro offers machine log file analysis for MLCs as recommended in TG-142.

▶ **Can I analyze Patient QA files in ImagePro?**

- ▶ ImagePro is for Machine QA. Sun Nuclear is the leader in Patient QA tools with SNC Patient™ software supporting MapCHECK® 2, ArcCHECK®, and EPIDs. DVH based QA is available for all three of these hardware tools with Sun Nuclear's 3DVH® software.



## Specifications

### ImagePro Software

**Integrated Data Device™ (IDD) - Included:** Includes ImagePro Software, Windows Embedded 7 Standard, 8 GB RAM, 128 GB HD, i5 processor, IIS 7; Microsoft SQL Server 2008r2; WiFi 802.11b/g

**Browser:** Google Chrome or IE with Chrome frame plugin



Compatible with most phantoms, including:

<b>Phantoms</b>	<b>kV</b>	ImagePro kV, TOR 18FG, QC-kV1
	<b>MV</b>	ImagePro MV, Las Vegas, QC-3
	<b>CBCT</b>	Catphan 503 and 504
	<b>Field Size</b>	ImagePro FS
	<b>Winston-Lutz</b>	ImagePro Winston-Lutz
<b>Log File Support</b>		DynaLog

### ImagePro Phantoms

#### MV-QA / kV-QA

**MV Line pairs/mm:** 0.1, 0.2, 0.5,  $1.0 \pm 0.025$

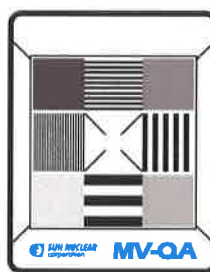
**kV Line pairs/mm:** 0.6, 1.2, 1.8,  $2.4 \pm 0.01$

**MV ROI:** 9 (4 spatial, 4 contrast, 1 center)

**kV ROI:** 28 (4 spatial, 23 contrast, 1 center)

**MV Dimensions (cm):** 12.7L x 10.2W x 2.5D

**kV Dimensions (cm):** 12.7L x 12.7W x 1.6D



MV-QA



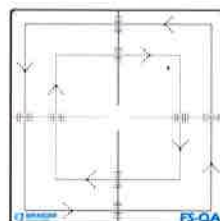
kV-QA

#### FS-QA

**Field sizes:** 10 x 10cm; 15 x 15cm

**Markers ( $\pm 0.1$ mm):** 56 - Field size (7 per field edge)  
1 - Orientation

**Dimensions (cm):** 17.8L x 17.8W x 0.6D



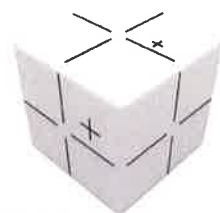
FS-QA

#### WL-QA

**Dimensions (cm):** 6.0 x 6.0 x 6.0

**Sphere size (mm):** 8.0

**Sphere center accuracy:** 0.2mm



WL-QA



All data used is best available at time of publication. Data is subject to change without notice. All Content ©2013, Sun Nuclear Corporation. All Rights Reserved.

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